

AMENDMENTS TO THE CLAIMS

Pursuant to 37 C.F.R. § 1.121 the following listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) A drive device for a mechanical press with a two-step speed reduction mechanism for driving a slide of the mechanical press comprising:

a drive pinion provided concentrically with a crankshaft;

a main gear mounted on said crankshaft;

intermediate gears meshing with said drive pinion;

intermediate pinions meshing with said main gear; and

a drive shaft connected to said drive pinion;

wherein a plurality of said intermediate gears and said intermediate pinions are concentrically provided with each other, and

said drive shaft and said crankshaft rotate about a common axis.

2. (Original) A drive device for a mechanical press described in claim 1, further comprising:

a second set of intermediate gears, wherein said intermediate gears and said second set of intermediate gears are located on opposite sides of said drive pinion in symmetric positions; and

a second set of intermediate pinions, wherein said intermediate pinions and said second set of intermediate pinions are located on opposite sides of said main gear on symmetric positions.

3. (Previously Presented) A drive device for a mechanical press described in claim 1, wherein

said drive shaft includes an end on which said drive pinion is provided, and
said drive shaft rotatably engages a hole formed on an end of said crankshaft in order to
support another end of the drive shaft.

4. (Previously Presented) A drive device for a mechanical press described in claim 2, wherein
said drive shaft includes an end on which said drive pinion is provided, and
said drive shaft rotatably engages a hole formed on an end of said crankshaft in order to
support another end of the drive shaft.

5. (Currently Amended) A The drive device for a mechanical press with a two-step speed
reduction mechanism for driving a slide of the mechanical press described in claim 1, further
comprising:

~~a drive pinion provided concentrically with a crankshaft; a main gear mounted on said~~
~~crankshaft; intermediate gears meshing with said drive pinion; intermediate pinions meshing with~~
~~said main gear; and~~

a brake comprising:

a brake shaft; and

a brake pinion formed on said brake shaft and meshing with said intermediate gears,

wherein a plurality of said intermediate gears and said intermediate pinions are
concentrically provided with each other.

6. (Original) A drive device for a mechanical press described in claim 5, further comprising:

a second set of intermediate gears, wherein said intermediate gears and said second set of intermediate gears are located on opposite sides of said drive pinion in symmetric positions; and

a second set of intermediate pinions, wherein said intermediate pinions and said second set of intermediate pinions are located on opposite sides of said main gear on symmetric positions.

7. (Original) A drive device for a mechanical press described in claim 5, further comprising:

a drive shaft having an end on which said drive pinion is provided, said drive shaft rotatably engages a hole formed on an end of said crankshaft in order to support another end of the drive shaft.

8. (Original) A drive device for a mechanical press described in claim 6, further comprising:

a drive shaft having an end on which said drive pinion is provided, said drive shaft rotatably engages a hole formed on an end of said crankshaft in order to support another end of the drive shaft.

9. (Canceled)

10. (Previously Presented) A drive device for a mechanical press described in claim 1, further comprising a flywheel transmitting rotational motion to said drive pinion, wherein said drive shaft penetrates through said flywheel and said main gear.

11. (Previously Presented) A drive device for a mechanical press described in claim 1, further comprising a single flywheel transmitting rotational motion to said drive pinion, wherein said drive shaft penetrates through said flywheel.

12. (Previously Presented) A drive device for a mechanical press described in claim 13, wherein the vertical plane intersects the drive pinion.

13. (Previously Presented) A drive device for a mechanical press with a two-step speed reduction mechanism for driving a slide of the mechanical press comprising:

- a drive pinion provided concentrically with a crankshaft;
- a main gear mounted on said crankshaft;
- intermediate gears meshing with said drive pinion;
- intermediate pinions meshing with said main gear; and
- a drive shaft connected to said drive pinion,

wherein a plurality of said intermediate gears and said intermediate pinions are concentrically provided with each other,

- the intermediate gears are symmetric to each other about a vertical plane, and
- said drive shaft and said crankshaft rotate about a common axis.

14. (Previously Presented) A drive device for a mechanical press described in claim 5, further comprising a flywheel transmitting rotational motion to said drive pinion, wherein said drive shaft penetrates through said flywheel and said main gear.

15. (Previously Presented) A drive device for a mechanical press described in claim 5, further comprising a single flywheel transmitting rotational motion to said drive pinion, wherein said drive shaft penetrates through said flywheel.

16. (New) A drive device for a mechanical press with a two-step speed reduction mechanism for driving a slide of the mechanical press comprising:

- a crankshaft;

- a drive pinion provided concentrically with the crankshaft;

- a main gear mounted on the crankshaft;

- intermediate gears meshing with the drive pinion;

- intermediate pinions meshing with the main gear; and

- a drive shaft connected to the drive pinion;

- an axis of rotation;

wherein a plurality of the intermediate gears and the intermediate pinions are concentrically provided with each other, and

- the drive shaft and the crankshaft rotate around about the axis of rotation.

17. (New) A drive device for a mechanical press as described in claim 16, wherein the drive shaft, the crankshaft, and the drive pinion rotate about the axis of rotation.

18. (New) A drive device for a mechanical press as described in claim 16, wherein the axis of rotation is a horizontal axis as viewed from an upright position of the press.